### Formfactor
Formfactor COM Express® Mini | (55 x 84 mm) | Type 10

<table>
<thead>
<tr>
<th>CPU</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intel® Atom™ E3845</td>
</tr>
<tr>
<td>Intel® Atom™ E3827</td>
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<tr>
<td>Intel® Atom™ E3826</td>
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<tr>
<td>Intel® Atom™ E3815</td>
</tr>
<tr>
<td>Intel® Celeron® N2807</td>
</tr>
<tr>
<td>Intel® Celeron® N2930</td>
</tr>
</tbody>
</table>

### DRAM
Onboard DDR3L memory support for up to 8 GByte with 1333MT/s

### Chipset
Integrated in SoC

### Onboard storage
eMMC 4.51 interface | up to 64GB of MLC NAND | up to 4GB of SLC NAND

### Ethernet
Intel I210 Gigabit Ethernet

### I/O Interfaces
- Up to 4x PCIe x1 lanes with 5 Gb/s PCI Express 2.0
- 2x SATA 2.0 3Gb/s ports
- 7x USB 2.0
- 1x USB 3.0
- LPC
- SPI
- PC bus (fast mode 400 kHz, multi-master)
- SDIO

### Sound
Digital High-Definition Audio Interface

### Graphics
- Intel® HD Graphics Gen 7
- Full hardware acceleration for MPEG2 | H.264 | DirectX11 | OCL 1.2 | OGL 3.2 | WMV9 and VC1

### LVDS
- Single channel LVDS transmitter | support for flat panels with 1x18 bit/1x24 bit data mapping up to a resolution of 1920x1200Hz

### congatec Board Controller
- Multi Stage Watchdog
- non-volatile User Data Storage
- Manufacturing and Board Information
- Board Statistics
- BIOS Setup Data Backup
- Power Loss Control

### Embedded BIOS Features
- OEM Logo
- OEM CMOS Defaults
- LCD Control
- Display Auto Detection
- Backlight Control
- Flash Update
- based on AMI Aptio UEFI

### Power Management
- ACPI 5.0 with battery support

### Operating Systems
- Microsoft® Windows 10
- Microsoft® Windows 10 IoT Enterprise
- Microsoft® Windows 10 IoT Core
- Microsoft® Windows® 8
- Microsoft® Windows® 7
- Linux
- Microsoft® Windows® Embedded Standard
- Microsoft® Windows® 7 Embedded Compact
- Android
- Yokto
- MoonIsland / WindRiver IDP

### Power Consumption
- ACPI
- USB 5V
- HDMI/Displayport 1.4
- 12V 3.3V
- 12V 5V
- 5V 3.3V

### Temperature
- Commercial: Operating: 0 to +60°C
- Storage: -20 to +80°C
- Industrial: Operating: -40 to +85°C
- Storage: -45 to +85°C

### Humidity
- Operating: 10 - 90% r. H. non-cond.
- Storage: 5 - 95% r. H. non-cond.

### Size
- 55 x 84 mm (2.17” x 3.31")

### comexpressextreme

- 3rd Gen. Intel® Atom™ | Intel® Celeron® processor family
- COM Express Mini Type 10 module
- High resolution Intel® Gen. 7 graphics
- Temperature range up to -40°C .. +85°C
**conga-MA3** | Block diagram

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**Order Information**

<table>
<thead>
<tr>
<th>Article</th>
<th>PN</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>conga-MA3/E3845-4G</td>
<td>047400</td>
<td>Intel® Atom™ E3845 quad core processor with 1.91GHz</td>
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<tr>
<td>conga-v MA3/E3827-2G</td>
<td>047401</td>
<td>Intel® Atom™ E3827 dual core processor with 1.75GHz</td>
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<tr>
<td>conga-MA3/E3826-2G</td>
<td>047402</td>
<td>Intel® Atom™ E3826 dual core processor with 1.46GHz</td>
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<tr>
<td>conga-MA3/E3815-2G</td>
<td>047403</td>
<td>Intel® Atom™ E3815 single core processor with 1.91GHz</td>
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<tr>
<td>conga-MA3/N2930-2G</td>
<td>047406</td>
<td>Intel® Celeron® N2930 quad core processor with 1.83GHz up to 2.16GHz</td>
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<tr>
<td>conga-MA3/N2807-2G</td>
<td>047407</td>
<td>Intel® Celeron® N2807 single core processor with 1.58GHz up to 2.16GHz</td>
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<tr>
<td>conga-MA3/E3845-4G</td>
<td>047410</td>
<td>Intel® Atom™ E3845 quad core processor with 1.91GHz</td>
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<tr>
<td>conga-MA3/E3827-2G</td>
<td>047411</td>
<td>Intel® Atom™ E3827 dual core processor with 1.75GHz</td>
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<tr>
<td>conga-MA3/E3845-2G</td>
<td>047412</td>
<td>Intel® Atom™ E3845 quad core processor with 1.91GHz</td>
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<tr>
<td>conga-MA3/E3815-2G</td>
<td>047413</td>
<td>Intel® Atom™ E3815 single core processor with 1.91GHz</td>
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<tr>
<td>conga-MA30/HSP-T</td>
<td>047450</td>
<td>Standard heatspreader for COM Express Type 10 module conga-MA3. All standoffs are M2.5 thread.</td>
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<tr>
<td>conga-MA30/HSP-B</td>
<td>047451</td>
<td>Standard heatspreader for COM Express Type 10 module conga-MA3. All standoffs are 2.7mm bore hole.</td>
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<tr>
<td>conga-MA30/CSP-T</td>
<td>047452</td>
<td>Standard passive cooling solution for COM Express Type 10 module conga-MA3 with fins. All standoffs are M2.5mm thread.</td>
</tr>
<tr>
<td>conga-MA30/CSP-B</td>
<td>047453</td>
<td>Standard passive cooling solution for COM Express Type 10 module conga-MA3 with fins. All standoffs are 2.7mm bore hole.</td>
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**Accessories**

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<tbody>
<tr>
<td>conga-MEVAL</td>
<td>065400</td>
<td>Evaluation carrier board for Type 10 COM-Express-modules.</td>
</tr>
<tr>
<td>conga-LDV3/EPI</td>
<td>011115</td>
<td>UVOS to DVI converter board for digital flat panels with onboard EEPROM.</td>
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<tr>
<td>COM-Express-carrier-board-Socket-5</td>
<td>400007</td>
<td>Connector for COM-Express carrier boards</td>
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<tr>
<td>COM-Express-carrier-board-Socket-8</td>
<td>400004</td>
<td>Connector for COM-Express carrier boards</td>
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